

### ABSTRACT OF THE DISCLOSURE

An x-ray cassette having increased durability. The x-ray cassette comprises a shell and a storage phosphor assembly. The shell comprises an upper and lower panel, a first and second side member, and a front end member. The 5 first and second side members and front end member join the upper and lower panels to define a cavity having an open end. The storage phosphor assembly comprises a back end member, an insert plate, and an edge insert. The storage phosphor assembly is adapted to be removably contained within the shell such that the back end member closes off the open end of the shell. A first side of the 10 edge insert is affixed to the insert plate. A first end of the edge insert is disposed adjacent the back end member, and a second end of the edge insert comprises at least one recess on the first side. In a preferred embodiment, the insert plate includes a honeycomb core comprising honeycomb cells wherein the honeycomb cells disposed along a perimeter of the honeycomb core are filled with an 15 adhesive or epoxy.